

WHAT IS CLAIMED IS:

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A method for enabling a multicast telecommunication session, comprising:

receiving multicast media streaming sent to a
5 multicast group address at a multicast intermediary; and
communicating the media streaming to a unicast telephony device to enable the unicast telephony device to participate in a multicast telecommunication session.

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10 *12 32 44* 2. The method of Claim 1, further comprising sorting the multicast media streaming sent to the multicast group address by originating telephony device at the multicast intermediary.

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15 *13 37* 3. The method of Claim 1, further comprising mixing the multicast media streaming sent from different telephony devices to the multicast group address at the multicast intermediary.

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20 4. The method of Claim 1, further comprising:
receiving unicast media streaming from the unicast telephony device at the multicast intermediary; and
communicating the media streaming to the multicast group address.

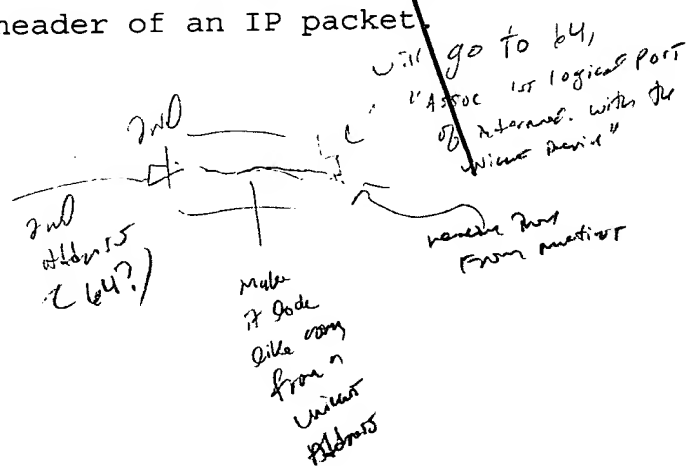
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5. The method of Claim 1, further comprising:
associating a first logical port of the multicast
intermediary with the unicast telephony device;
receiving multicast media streaming from the multicast
group address at the first logical port;
modifying source address information in the received
multicast media streaming to specify a second logical port
of the multicast intermediary associated with the multicast
group address; and
communicating the media streaming with the modified
source address information to the unicast telephony device.

6. The method of Claim 5, wherein associating a
second logical port of the multicast intermediary with the
unicast telephony device comprises associating a User
Datagram Protocol (UDP) logical port to enable the
streaming of Internet Protocol (IP) packets.

7. The method of Claim 6, wherein modifying source
address information in the received media streaming
comprises modifying a source IP address and port
information in a header of an IP packet.



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8. The method of Claim 1, further comprising:
receiving a call initiation request indicating a
desire to create a communication link between a multicast
telephony device and a unicast telephony device;

5 determining that the unicast telephony device is
incapable of receiving multicast media streaming; and

generating the multicast intermediary in response to
determining that the unicast telephony device is incapable
of receiving multicast media streaming.

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9. The method of Claim 1, wherein receiving
multicast media streaming sent to a multicast group address
comprises receiving multicast media streaming from one or
more multicast telephony devices participating in a
15 conference call with the unicast device.

10. The method of Claim 1, wherein receiving
multicast media streaming sent to a multicast group address
comprises receiving multicast media directed to the unicast
20 telephony device when it is placed on hold.

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11. A communication network, comprising:
a unicast telephony device;
a plurality of multicast telephony devices operable to
receive multicast media streaming transmitted to a
5 multicast group address; and

a multicast intermediary operable to receive multicast
media streaming sent to the multicast group address, and
further operable to communicate the media streaming to the
unicast telephony device to enable the unicast telephony
10 device to participate in the multicast communication with
the multicast telephony devices.

12. The communication network of Claim 11, wherein
the multicast intermediary is further operable to sort the
15 multicast media streaming sent to the multicast group
address by originating telephony device.

13. The communication network of Claim 11, wherein
the multicast intermediary is further operable to mix the
20 multicast media streaming sent to the multicast group
address from different telephony devices.

14. The communication network of Claim 11, wherein
the multicast intermediary is further operable to receive
25 unicast media streaming from the unicast telephony device
and to communicate the media streaming to the multicast
group address.

15. The communication network of Claim 11, further comprising a call manager operable to determine that the unicast telephony device is incapable of receiving multicast media streaming, and further operable to generate
5 the multicast intermediary in response to determining that the unicast telephony device is incapable of receiving multicast media streaming.

16. The communication network of Claim 11, wherein
10 the multicast intermediary comprises a logical device implemented using software executed on one or more devices coupled to the communication network.

17. The communication network of Claim 11, wherein
15 the unicast telephony device and the multicast telephony devices comprise Internet Protocol (IP) telephony devices.

18. The communication network of Claim 11, wherein
20 the multicast media streaming comprises Real-Time Transport Protocol (RTP) media streaming.

19. The communication network of Claim 11, wherein
the multicast media streaming comprises media transmitted
in a conference call between the unicast telephony device
25 and the multicast telephony devices.

20. The communication network of Claim 11, wherein
the multicast media streaming comprises multicast media
streaming transmitted to the unicast telephony device when
30 the unicast telephony device is placed on hold.

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21. A communication network, comprising:
- a first unicast telephony device;
 - a second unicast telephony device;
 - 5 a plurality of multicast telephony devices operable to receive multicast media streaming transmitted to a multicast group address;
 - a first multicast intermediary operable to receive multicast media streaming sent to the multicast group
10 address, and further operable to communicate the media streaming to the first unicast telephony device to enable the unicast telephony device to participate in the multicast communication with the multicast telephony devices; and
 - 15 a second multicast intermediary operable to receive multicast media streaming sent to the multicast group address, and further operable to communicate the media streaming to the second unicast telephony device to enable the unicast telephony device to participate in the
20 multicast communication with the multicast telephony devices.

22. The communication network of Claim 21, wherein:
- the first multicast intermediary is further operable
25 to receive unicast media streaming from the first unicast telephony device and to communicate the media streaming to the multicast group address; and
 - the second multicast intermediary is further operable to receive unicast media streaming from the second unicast
30 telephony device and to communicate the media streaming to the multicast group address.

23. The communication network of Claim 21, further comprising a call manager operable to determine that the first and second unicast telephony devices are incapable of receiving multicast media streaming, and further operable to generate the first and second multicast intermediaries in response to determining that the first and second unicast telephony devices are incapable of receiving multicast media streaming.

24. The communication network of Claim 21, wherein the first and second multicast intermediaries are further operable to sort the multicast media streaming sent to the multicast group address by originating telephony device.

25. The communication network of Claim 21, wherein the first and second multicast intermediaries are further operable to mix the multicast media streaming sent to the multicast group address from different telephony devices.

26. The communication network of Claim 21, wherein the first and second multicast intermediaries each comprise a logical device implemented using software executed on one or more devices coupled to the communication network.

27. The communication network of Claim 21, wherein the first and second unicast telephony devices and the multicast telephony devices comprise Internet Protocol (IP) telephony devices.

28. The communication network of Claim 21, wherein the multicast media streaming comprises Real-Time Transport Protocol (RTP) media streaming.

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29. The communication network of Claim 21, wherein the multicast media streaming comprises media transmitted in a conference call between the first and second unicast telephony devices and the plurality of multicast telephony devices.

30. The communication network of Claim 21, wherein the multicast media streaming comprises multicast media streaming transmitted to at least one of the first and second unicast telephony devices when at least one of the first and second unicast telephony devices is placed on hold.

31. Multicast intermediary software embodied in a computer-readable medium and operable to perform the following steps:

receiving multicast media streaming sent to a
5 multicast group address; and

communicating the media streaming to a unicast telephony device to enable the unicast telephony device to participate in a multicast telecommunication session.

10 32. The multicast intermediary software of Claim 31, further operable to sort the multicast media streaming sent to the multicast group address by originating telephony device.

15 33. The multicast intermediary software of Claim 31, further operable to mix the multicast media streaming sent to the multicast group address from different telephony devices.

20 34. The multicast intermediary software of Claim 31, further operable to perform the following steps:

receiving unicast media streaming from the unicast telephony device; and

25 communicating the media streaming to the multicast group address.

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35. The multicast intermediary software of Claim 31, further operable to perform the following steps:

associating a first logical port with the unicast telephony device;

5 receiving multicast media streaming from the multicast group address at the first logical port;

modifying source address information in the received multicast media streaming to specify a second logical port associated with the multicast group address; and

10 communicating the media streaming with the modified source address information to the unicast telephony device.

36. The multicast intermediary software of Claim 35, wherein associating a first logical port with the unicast telephony device comprises associating a User Datagram Protocol (UDP) logical port to enable the streaming of Internet Protocol (IP) packets.

37. The multicast intermediary software of Claim 36, wherein modifying source address information in the received media streaming comprises modifying a source IP address and port information in a header of an IP packet.

38. The multicast intermediary software of Claim 31, wherein receiving multicast media streaming sent to a multicast group address comprises receiving multicast media streaming from one or more multicast telephony devices participating in a conference call with the unicast device.

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39. The multicast intermediary software of Claim 31,
wherein receiving multicast media streaming sent to a
multicast group address comprises receiving multicast media
directed to the unicast telephony device when it is placed
on hold.

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40. A communication network, comprising:

a plurality of multicast telephony devices operable to receive multicast media streaming transmitted to a multicast group address; and

5 a call manager operable to establish a communication session with one or more of the multicast telephony devices.

41. The communication network of Claim 40, wherein
10 the call manager is further operable to establish a communication session between the multicast telephony devices, such that each multicast telephony device receives and sums multicast media streaming from the other multicast telephony devices.

15 42. The communication network of Claim 40, wherein the call manager is further operable to transmit multicast media streaming to a multicast telephony device when the multicast telephony device is placed on hold.

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43. A multicast intermediary comprising a communication module operable to receive multicast media streaming from a multicast group address, and further operable to communicate the media streaming to a unicast telephony device to enable the unicast telephony device to participate in the multicast communication with multicast telephony devices.

44. The multicast intermediary of Claim 43, wherein the multicast intermediary is further operable to sort the multicast media streaming sent to the multicast group address by originating telephony device.

45. The multicast intermediary of Claim 43, wherein the multicast intermediary is further operable to mix the multicast media streaming sent to the multicast group address from different telephony devices.

46. The multicast intermediary of Claim 43, further comprising:

a first logical port associated with the unicast telephony device;

a second logical port associated with the multicast group address; and

an address translation module operable to receive multicast media streaming from the multicast group address at the first logical port, and further operable to modify source address information in the received multicast media streaming to specify the second logical port associated with the multicast group address.

47. The multicast intermediary of Claim 46, wherein
the communication module is operable to communicate the
media streaming with the modified source address
5 information to the unicast telephony device.

48. The multicast intermediary of Claim 46, wherein
the first and second logical ports are User Datagram
Protocol (UDP) logical ports.

49. The multicast intermediary of Claim 46, wherein
the address translation module is further operable to
modify a source IP address and port information in a header
of an IP packet.